User's Manual

M730V LCD Monitor

CTX

Federal Communications Commission (F.C.C.) Statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Use only shielded cables or connect I/O devices to this equipment.
You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Disclaimer

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English

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IMPORTANT SAFETY INSTRUCTIONS

Please read the following instructions carefully. This manual should be retained for future reference.

1. To clean the LCD Monitor screen make sure the Monitor is in the power off mode. Unplug the Monitor from its power source before cleaning it. Stand away from the LCD Monitor and spray cleaning solution onto a rag. Without applying excessive pressure clean the screen with the slightly dampened rag.
2. Do not place your LCD Monitor near a window. Exposing the Monitor to rain, water, moisture or sunlight can severely damage it.
3. Do not place anything on top of the Monitor/PC signal cord. Make sure the cord is placed in an area where it will not be stepped on.
4. Do not apply pressure to the LCD screen. Excessive pressure may cause permanent damage to the display.
5. Do not remove the cover or attempt to service this unit by yourself. You may void the warranty. Servicing of any nature should be performed only by an authorized technician.
6. Safe storage of the LCD Monitor is in a range of minus 20 to plus 60 degrees Celsius. Storing your LCD Monitor outside this range could result in permanent damage.
7. If any of the following occurs immediately unplug your Monitor and call an authorized technician.

- The power or Monitor-to-PC signal cord is frayed or damaged.
- Liquid has been spilled into the Monitor, or it has been exposed to rain.
- The Monitor has been dropped or the case has been damaged.

Notice :

Actual safety specifications please refer to the label on the back of monitor.

INTRODUCTION

Product Description

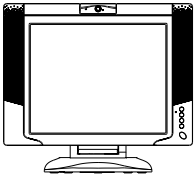
Your LCD monitor incorporates high quality display, solid structure and multimedia savvy. With user-friendly interfaces, user will enjoy the professional PC application as well as Audio Video performances. In addition, it has power-saving capabilities and emits no X-ray radiation.

The features are:

- 17" TFT Liquid Crystal Display
- Compatible with IBM VGA, VESA
- Direct VGA input
- Direct DVI input
- USB 2.0 Hub inside
- Equipped with Built-In Camera (640 X 480) with high quality image lens, 1/4" Color VGA CMOS, and full Space Microphone
- SXGA 1280x1024 resolution, up to 16M colors
- DPMS (power saving) Compatible
- Built in universal power supply
- Anti-glare display
- On-Screen Display (OSD) controls and adjustments
- 3W x2 Audio function inside the monitor
- SRS Surround Sound System

Package Overview

Your monitor package contains:



LCD Monitor

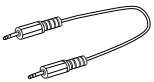
VGA Cable

CD x 1

Power Cord

USB Cable

DVI Cable



Audio Cable

CAUTION

Keep the shipping carton in case the need arises to store or transport the unit. Let the LCD lie on its face when you put it into the carton.

INTRODUCTION

Recommended Use of the Monitor

• Power
– Use the type of power indicated on the marking label.

• Plugs
– Do not remove any of the prongs of the monitor's three-pronged power plug.
– Disconnect the power plug from the AC outlet if you are not going to use it for an indefinite period of time.

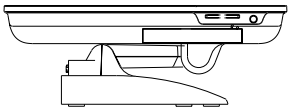
• Power cords
– Use the proper power cord with correct attachment plug type. If the power source is 120 VC, use a power cord that has UL and CSA approvals. If the power source is a 240 VAC supply, use the tandem (T blade) type attachment plug with ground conductor power cord that meets the respective European country's safety regulations, such as VDE for Germany.
– We recommend using the power cord supplied with the product. However, if another type of power cord is required power cord H05VV-F or VW-1, 18AWG x 3G should be used.
– Do not overload wall outlets or power cords. Ensure that the total of all units plugged into the wall outlet does not exceed 7 amperes.
– Ensure that the total ampere ratings on all units plugged into the extension cord is not above the cord's rating.
– If the power supply cord which came with your monitor is to be connected to the PC instead of the wall outlet, this equipment should be used with UL/TUV approved computers with receptacle rated 100 ~ 240V AC, 50/60Hz, 1.1A (minimum).
– Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

• Environment
– Place the monitor on a flat level surface.
– Place the monitor in a well-ventilated place.
– Keep the monitor away from:
rain or water
overly hot, cold or humid places
sunlight
dusty surroundings
equipment that generates strong magnetic fields

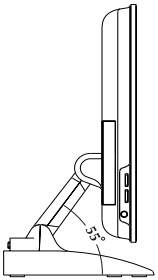
INTRODUCTION

The Guideline of Operation Angle of LCD Monitor

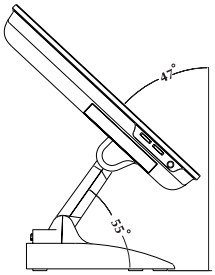
1. Unpack the monitor from Carton box.
2. Put the monitor on a flat table.



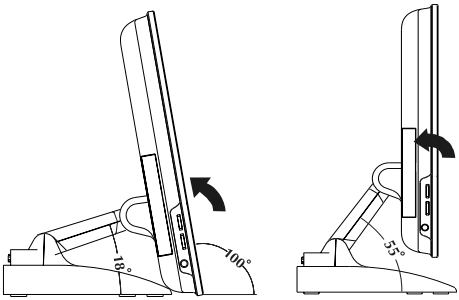
3. To hold the base of monitor with one hand and pull the frame of panel of monitor, let the panel up with base on the vertical position.



4. To adjust the monitor in a comfortable view position, please change the tilt angle of panel of monitor in an optimal position.
5. The normal operation range is forward 5 degrees to backward 47 degrees. Not allow to operation over than 47 degree in back direction.



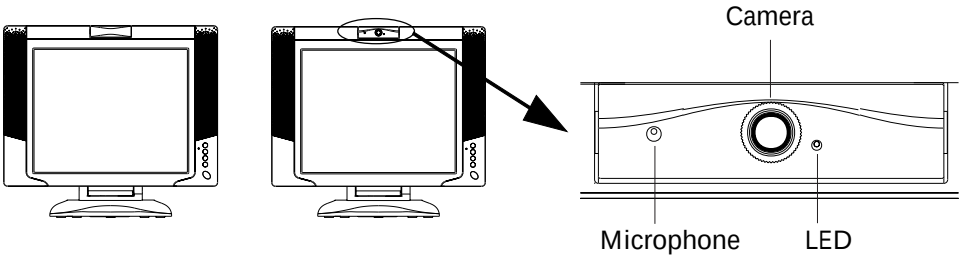
6. To adjust the monitor in a comfortable view position, please change the high range of panel of monitor in an optimal position. The normal operation range is up 55 degrees and down 18 degrees.



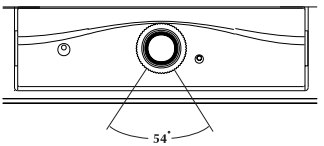
INTRODUCTION

The Camera Function in LCD Monitor

The Built-in Camera and Microphone are useful tools which enable internet study, net meeting, chat, and other entertainment purposes & functions.

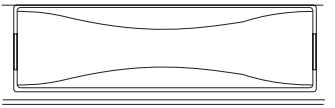


The Scope of View Angle

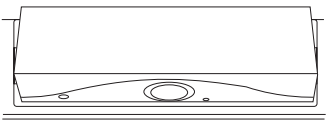


The Guideline for Adjusting the Angle of Camera

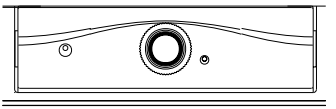
0°



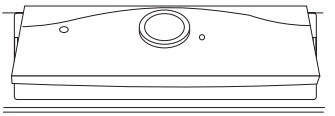
UP 45°



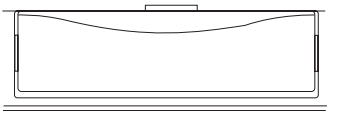
90° Position



135° Position



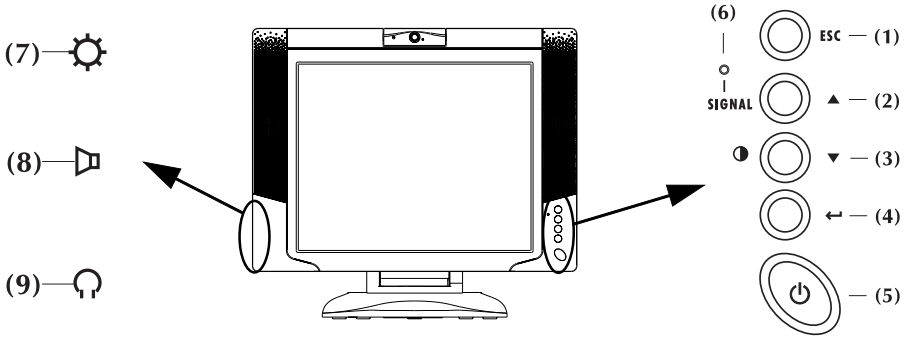
180° Position



CONTROLS AND ADJUSTMENTS

Once you have installed this monitor with your system, please read the instructions in this section, It provides you some guidelines on how to use the monitor more efficiently, and lead you through the various functions of the user controls and explain how to adjust the monitor to your personal preference.

Front User Controls



(1) "ESC" button
To close the OSD(On Screen Display) manual and to escape function or audio mute.

(2) Up "Δ" button
To adjust the selected OSD function or the contrast or select DVI/VGA input.

(3) Down " ∇" button
To adjust the selected OSD function or the contrast directly.

(4) Enter " ↵ " button
To display the OSD manual and select functions.

(5) Power Switch
To turn the monitor On or Off.

(6) Power LED Indicator
The LED Indicator is for showing the ON/Off of power

(7) Brightness Control (Side View)
To adjust the brightness directly.

(8) Volume Control (Side View)
To adjust the Volume directly.

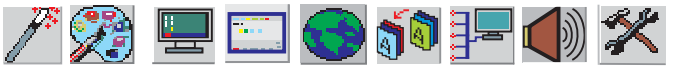
(9) Earphone Plug-in (Side View)

CONTROLS AND ADJUSTMENTS

On Screen Display (OSD) Main menu

1. Press " ↵ " to open the OSD main menu.
2. Use the "∇" and " Δ " arrows to move through the displayed functions.
3. Press " ↵ " to confirm your selected function.

When the main screen starts, there are following functions to choose


.

1.  ***Auto-Tune*** (It is disabled in DVI Mode)

When selecting “Auto-Tune”, wait for a few seconds, the monitor will auto-adjust Clock, Phase, H-position and V-position to their optimal level.

ADVANCED AUTO TUNE PATTERN PROGRAM USAGE GUIDE

- As some VGA Cards do not match the VESA standard they cannot output 0.7 V p-p VESA standard. Therefore, you need the "ADVANCED AUTO TUNE PATTERN PROGRAM" to modify the parameters of the monitor to match the different output level of the VGA card.
- AUTO_TUNE.exe is used for Windows the display mode adjustment. It will adjust the VGA input level and video quality to optimum.
- DOS_TUNE.exe is used for 720x400 70Hz & 640x 350 70Hz under DOS mode adjustment. It will adjust the video quality to optimum.
- For the adjustment, please execute the program, then select the "Auto Tune" function in the OSD menu, to get the optimal picture.

CONTROLS AND ADJUSTMENTS

2. Color

To enter this item menu, you can choose either the Auto Color, Color 1, Color 2, Color 3, Best Color and User mode.

 : Auto Color ; It is disabled in DVI Mode

 : Color 1

 : Color 2

 : Color 3

 : Best Color

 : User

3. Image

To enter this item menu, here are some items which can be adjusted as below.

 : Auto Geometry ; It is disabled in DVI Mode

 : Clock ; It is disabled in DVI Mode

 : Phase ; It is disabled in DVI Mode

 : H.Position ; It is disabled in DVI Mode

 : V.Position ; It is disabled in DVI Mode

 : Smooth

 : Zoom

 : Full

 : Original

 : Customize

CONTROLS AND ADJUSTMENTS

4. OSD Setting

To enter this item menu, it can be adjusted OSD position and OSD timeout.

: H. Position

: V. Position

: Center

: OSD timeout

5. Language

To select the OSD languages between English, German, French, Spanish, Italian, Chinese, Japanese or Russian .

- (•) English
- ( ) Español
- ( ) Deutsch
- ( ) Italiano
- ( ) Français
- ( ) 繁體中文

6. Reset

- To select "Yes" or "No".
- Choosing Reset to call-back all the settings for the current Input Signal mode to factory preset.

7. Source

Choosing Input Signal mode.

: VGA

: DVI

8. Audio setting

To enter this item menu and you can adjust Surround, Mute or Source.

: Surround

: Mute

: Source
Audio 1 Audio 2

9. Advanced

To enter this item menu, you can select Text mode or Motion Picture Mode.

: Text

: Motion Picture

CONTROLS AND ADJUSTMENTS

Energy Declaration

This monitor is equipped with a function for saving energy, which supports the VESA Display Power Management Signaling (DPMS) standard. This means that the monitor must be connected to a computer. The time settings for switching to a power saving mode are adjusted from the system unit by software. From the first indication of inactivity to power saving position the total time must not be set to more than 70 minutes.

1. VESA Power-Management Proposal

VESA DPMS Standard			
H. sync	V. sync	Video	State
Off	On	Blank	Stand-by
On	Off	Blank	Suspend
Off	Off	Blank	Off

2. Power Consumption (120/230 Vac)

NUTEK	VESA state	LED indicator	Power Consumption
Normal operation	On	Green	< 60W
Power Saving Position A1	Suspend	Amber	≤4W
Power Saving Position A2	Off	Amber	≤3W

TROUBLESHOOTING

Troubleshooting

If you are experiencing trouble with the LCD display refer to the following. If the problem persists please contact your local dealer or our service center.

The monitor does not respond after you turn on the system.

- Check if the monitor is turned on.
- Turn off the power and check the monitor power cord and signal cable are properly connected.

The characters on the screen are dim.

- Refer to the Controls and Adjustments section to adjust the brightness (BRIGHTNESS on the OSD sub-menu.)

The screen is blank.

- During use the monitor screen may automatically turn off as a result of the Power Saving feature. Press any key to see if the screen comes back.
- Refer to the Controls and Adjustments section to adjust the brightness (BRIGHTNESS on the OSD sub-menu.)

The screen flashes when it initializes.

- Turn off the monitor and turn it on again.
- Refer to the Controls and Adjustments section to reload the default setting (RESET on the OSD main-menu.)

Partial image or incorrectly displayed image

- Check to see if the resolution of your computer is higher than that of the LCD display
- Reconfigure the resolution of your computer to make it less than or equal to1280x1024 or to make sure reflesh rate is under 75Hz.

Image has vertical flickering line bars

- Use "Clock" to make an adjustment
- Check and reconfigure the display mode of the vertical refresh rate of your graphic card to make it compatible with the LCD display

Image is unstable and flickering

- Use "Phase" to make an adjustment.

Signal out of Range:

- When the input signal is outside the normal specifications the screen will display a "Signal out of Range" message.

No Signal Input:

- The "No Signal Input" message indicates that the cable may not be plugged properly into the host system.

WARNING

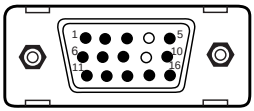
Do not disassemble the monitor. Contact your dealer if needed.

TECHNICAL INFORMATION

Compatibility

This LCD monitor supports multiple operating platforms such as IBM compatible computers. This section provides you with detailed information on pin assignment of the D-Sub/DVI connector and the preset timing chart of the prevailing video standards.

VGA Pin Assignment



Male Mini D-15 Connector

Signal	15 Pin Mini D-Sub
Red Video	1
Green Video	2
Blue Video	3
Horizontal Sync	13
Vertical Sync	14
Ground	5,6,7,8,10,11
No Connection	4
SDA (DDC)	12
SCL (DDC)	15
N.C.	9

VGA Modes

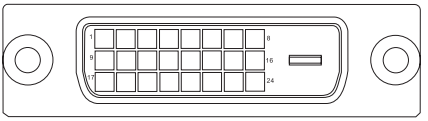
Resolution	VCLK(MHz)	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	Standard
720*400	28.322	31.469	70.000	IBM VGA
640*480	25.175	31.469	59.940	IBM VGA
640*480	31.500	37.861	72.800	VESA
640*480	31.500	37.500	75.000	VESA
800*600	40.000	37.879	60.317	VESA
800*600	50.000	48.077	72.188	VESA
800*600	49.500	46.875	75.000	VESA
1024*768	65.000	48.363	60.004	VESA
1024*768	75.000	56.746	70.069	VESA
1024*768	78.750	60.023	75.029	VESA
1280*1024	108.000	63.981	60.013	VESA
1280*1024	135.000	79.976	75.025	VESA
1152*864	108.000	67.500	75.000	VESA

Other Modes

640*350	@70 Hz
640*480	@70 Hz
800*600	@70 Hz
1024*768	@72 Hz
1152*864	@60 Hz, 70 Hz, 72 Hz
1280*720	@60 Hz
1280*960	@60 Hz, 70 Hz, 72 Hz, 75 Hz
1280*1024	@72 Hz
1280*1024	@70 Hz

TECHNICAL INFORMATION

DVI Pin Assignment



DVI Connector

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	T.M.D.S. Data 2-	9	T.M.D.S. Data 1-	17	T.M.D.S. Data 0-
2	T.M.D.S. Data 2+	10	T.M.D.S. Data 1+	18	T.M.D.S. Data0+
3	T.M.D.S. Data 2/4 Shield	11	T.M.D.S. Data 1/3 Shield	19	T.M.D.S. Data 0/5 Shield
4	No Connect	12	No Connect	20	No Connect
5	No Connect	13	No Connect	21	No Connect
6	DDC Clock	14	+5V Power	22	T.M.D.S. Clock Shield
7	DDC Data	15	Ground (for +5V)	23	T.M.D.S. Clock+
8	No Connect	16	Hot Plug Detect	24	T.M.D.S. Clock-

DVI Modes

Resolution	VCLK(MHz)	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	Standard
640*480	25.175	31.469	59.940	IBM VGA
800*600	40.000	37.879	60.000	VESA
1024*768	65.000	48.363	60.000	VESA
1280*1024	108.000	63.981	60.000	VESA

TECHNICAL INFORMATION

Specifications

LCD Panel	17" TFT LCD module with wide-viewing angle, 0.264(H)x0.264(V)mm pixel
[Monitor]	
Effective display size	17." (43.2cm diagonal)
Resolution (max.)	SXGA 1280x1024
Displayable colors	16M True color
Brightness	400 cd/m^2
Contrast ratio	500:1
Response time	16ms
Scan Frequency(VGA)	Horizontal: 30 to 80kHz Vertical: 59 to 75 Hz
Scan Frequency(DVI)	Horizontal: 30 to 66kHz Vertical: 59 to 61 Hz
Audio Input	2V(RMS). Max
Audio Output	Stereo, 3W x 2
User controls	Power/Enter/Up/Down/Escape/Volume
Power Consumption	≤60W ≤4W Power Saving, ≤3W Power switch off
Input signal	Analog 0.7V peak to peak separate TTL Positive or Negative
Power Supply	100 ~ 240V,50/60Hz (automatically)
Plug & Play	VGA: DDC 2Bi DVI: DCC $2B^+$
USB Hub	Compatible transmissio rate in high speed 480Mb/sec, full speed 12Mb/sec and low speed 1.5Mb/sec Down Stream Port x 3 transmission Per down stream port support current 500mA
[Camera]	
pixels	1/4" Color VGA CMOS 640x480
RGB	24bits
resolution	Supports160x120,176x144,320x240,352x280,640x480
Object Distance	20cm to Infinity(Minimum)
Microphone Type	Non-directional electric
Audio Sample rate	8KHz/16KHz
[Dimension & Weight]	
Size (WxDxH)	40.8x209.2x474mm
Weight (net)	6.6 Kgs
[Operating Environment]	
Temperature	5°C ~ 35°C
Humidity	20% ~ 80% (non-condensing)
[Storage Environment]	
Temperature	-20°C ~ 60°C
Humidity	10% ~ 90% (non-condensing)

Note : Specifications are subject to change without notice